WIZARD

FLYS OVER 1600'

- Super-Easy Assembly
- Die-Cut Fins
- High Performance Design
- 30" Streamer Recovery
- Kit Decals

SKILL LEVEL

1—Beginner	2—Intermediate	3—Craftsman	4—Advanced

SPECIFICATIONS:
Length 12" (30.5cm)
Body Dia. 0.736" (18.7mm)
Weight 0.79 oz. (20 g)
30" Streamer Recovery

RECOMMENDED ENGINES:
1/2A6-4 A8-5 B4-6
B6-4 B6-6 C6-7
Use A8-5 for first flights.

This is a hobby kit requiri[illegible]y.
Launch system, engines[illegible]d
finishing supplies are n[illegible]d
with this kit.

 # 1292

ESTES
A SUBSIDIARY OF DAMON

ESTES INDUSTRIES
PENROSE, COLO. 81240

FIN
WIZARD BODY TUBE
MARKING GUIDE
FIN
LAUNCH LUG
FIN
OVERLAP TAB

WIZARD

KIT NO. 1292

Skill Level 1

This kit recommended for Beginning Rocketeers.

PARTS LIST

		PART NO.
A) 1	Dummy Engine (type EC-2)	035010
B) 1	Body Tube (type BT-20B)	030320
C) 1	Engine Block (type AR-520)	030162
D) 1	Marking Guide (pattern sheet)	083242
E) 1	Balsa Fin Sheet (type BF-92)	032298
F) 1	Launch Lug (type LL-2A)	038175
G) 1	Shock Cord (type SC-1A)	085732
H) 1	Screw eye (type SE-2A)	038252
I) 1	Nose Cone (type BNC-20N)	070236
J) 1	Streamer (type RS-20)	038278
K) 1	Decal (type KD-92)	037096

In addition to the parts included in this kit you will need scissors, a pencil, a ruler, white glue, a sharp model knife (or single edge razor blade), sandpaper, sanding sealer, and white and purple spray paint. Masking tape is also recommended to achieve best painting results.

IMPORTANT:

Read all instructions before beginning any work on your model. Make sure you have all parts and materials. When you are thoroughly familiar with the assembly procedure, begin construction. Check off each step as you complete it. In each step, test-fit the parts together before applying any glue. If some part doesn't fit properly, sand lightly or build up as appropriate for precision assembly.

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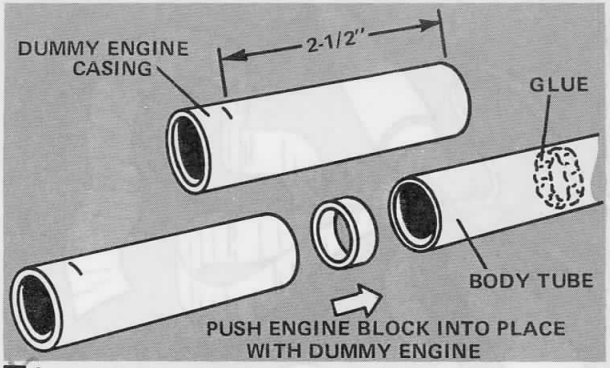
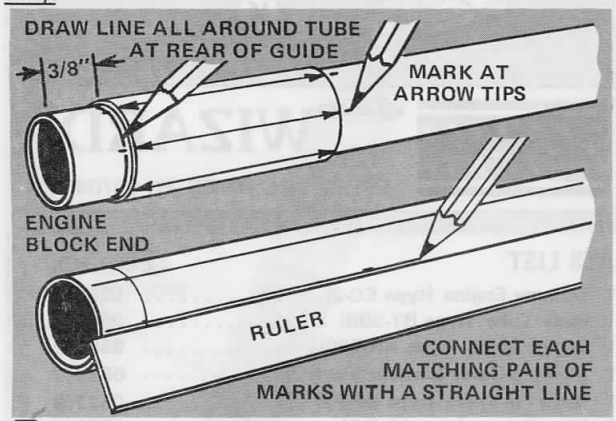
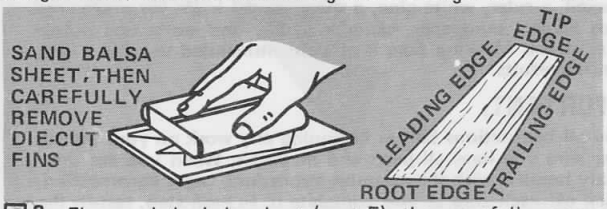
ASSEMBLY INSTRUCTIONS



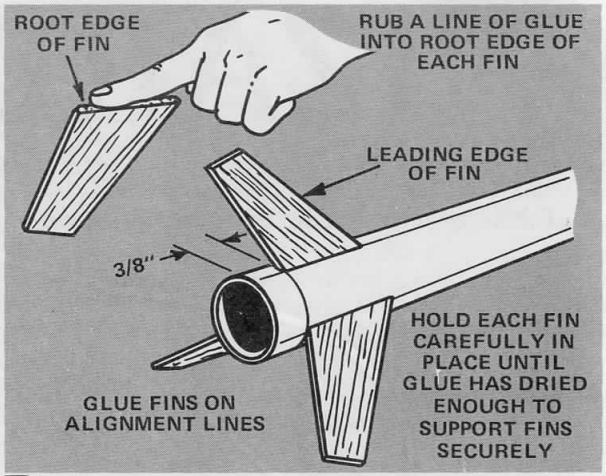
☐1 Mark the dummy engine casing (part A) 2-½" from one end. Spread a ¼" wide band of glue around the inside of the body tube (part B) about 2" in from one end. Insert the engine block (part C) into this end. Push the engine block into place with the dummy engine casing until the mark on the casing is even with the end of the body tube. Remove the dummy casing immediately.


DRAW LINE ALL AROUND TUBE AT REAR OF GUIDE
3/8"
MARK AT ARROW TIPS
ENGINE BLOCK END
RULER
CONNECT EACH MATCHING PAIR OF MARKS WITH A STRAIGHT LINE

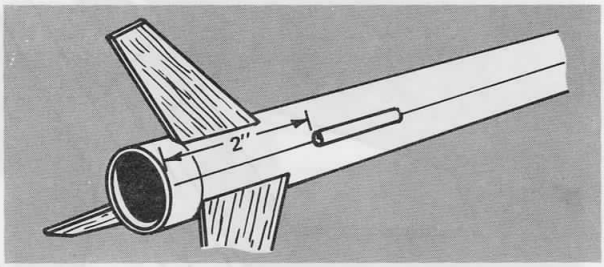
☐2 Cut out the tube marking guide from the pattern sheet (part D). Wrap it around the body tube 3/8" from the end with the installed engine block. Draw a line completely around the tube at the rear edge of the marking guide. Mark the tube at each arrow point. Remove the guide and draw straight lines connecting each matching front and rear marks. (Use a ruler when drawing straight lines.) Extend the launch lug line the length of the tube.



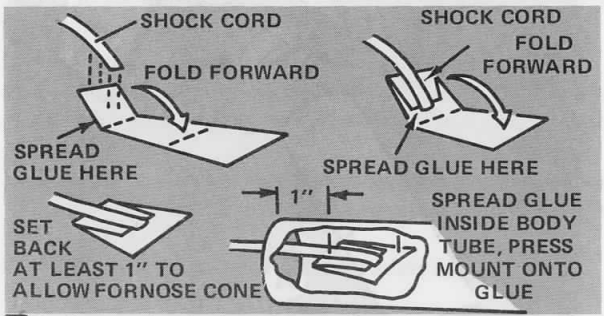
☐3 Fine sand the balsa sheet (part E), then carefully remove the die-cut fins from the sheet. Free the edges with a sharp knife. Sand the leading, trailing, and tip edges round. Leave the root edge square.


ROOT EDGE OF FIN
RUB A LINE OF GLUE INTO ROOT EDGE OF EACH FIN
LEADING EDGE OF FIN
3/8"
HOLD EACH FIN CAREFULLY IN PLACE UNTIL GLUE HAS DRIED ENOUGH TO SUPPORT FINS SECURELY
GLUE FINS ON ALIGNMENT LINES

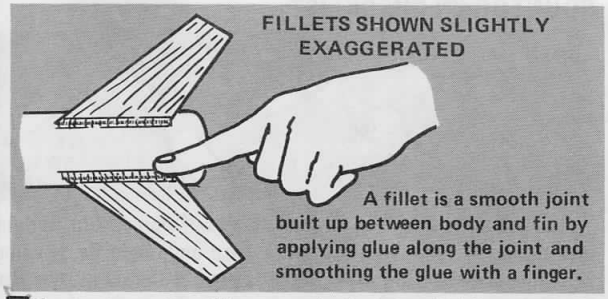
☐4 Rub a line of glue into the root edge of each fin and allow to dry. Glue the fins to the body on the alignment lines drawn in step 2. Refer to the illustration to be sure you mount the fins in the proper position. Adjust the fins so they project straight away from the body tube. Do not set the rocket on its fins while the glue is wet.



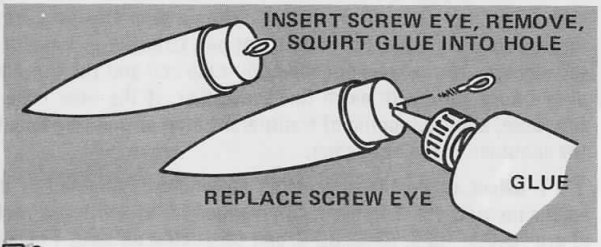
☐5 Glue the launch lug (part F) to the body on its line. The rear of the lug should be 2" from the rear of the body. Align it straight on the body.



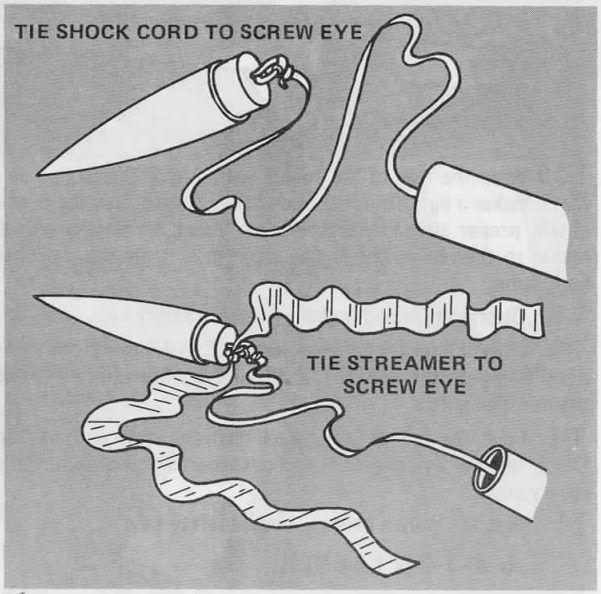
☐6 Cut out the shock cord mount from the pattern sheet. Prefold it on the dotted lines. Apply glue to section 1 and lay the shock cord (part G) into the glue. Fold over and apply glue to the back of the first section and the exposed part of section 2. Lay the shock cord as shown and fold over again. Clamp the unit together with your fingers until the glue sets. Glue the mount inside the forward end of the body tube as shown.


FILLETS SHOWN SLIGHTLY EXAGGERATED
A fillet is a smooth joint built up between body and fin by applying glue along the joint and smoothing the glue with a finger.

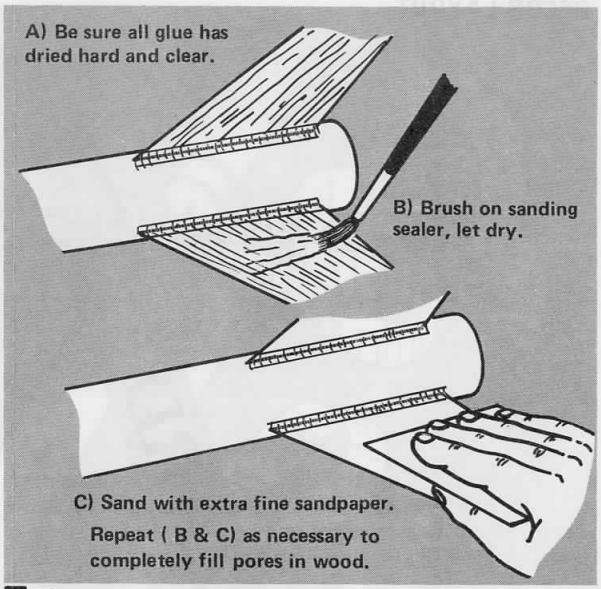
☒7 Apply a glue fillet to each fin joint. Holding the rocket horizontally, apply a line of glue to the joint and smooth it out with your finger. Support the rocket horizontally until the glue drys on all six fillets.



☐8 Insert the screw eye (part H) into the base of the nose cone (part I). Remove the screw eye and squirt a small amount of glue into the hole. Replace the screw eye.



☒9 After the glue on the rocket has dried enough so it can be safely handled, tie the free end of the shock cord to the screw eye. Pass one end of the streamer (part J) through the screw eye and continue to pull the streamer until its length is centered in the eye. Tightly tie the streamer to the screw eye with a double knot.


A) Be sure all glue has dried hard and clear.
B) Brush on sanding sealer, let dry.
C) Sand with extra fine sandpaper.
Repeat (B & C) as necessary to completely fill pores in wood.

☐10 Lightly sand the fins and nose cone until the balsa feels smooth. Apply two or more coats of sanding sealer to all balsa surfaces. Sand lightly with extra fine sandpaper between coats. Repeat until pores are filled and the surfaces look and feel smooth.

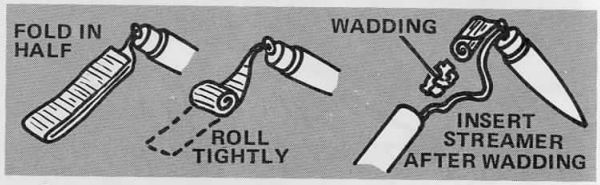
SPRAY PAINT FOR BEST RESULTS. USE STICK OR DOWEL FOR ROCKET HOLDER. SHAKE CAN BEFORE SPRAYING.
FIRST COATS ARE LIGHT, DRY, MIST COATS.
MASKING TAPE AND PAPER PROTECT MODEL FROM SECOND COLOR SPRAY.
2"
LET DRY COMPLETELY BETWEEN COATS.
TO OBTAIN GLOSS FINAL COAT SHOULD BE SLIGHTLY HEAVIER.
HOLD CAN STRAIGHT UP AND SPRAY IN LONG, SMOOTH "STROKES". SHAKE CAN PERIODICALLY.
NOTE: APPLY FINAL COAT WITH "WET" LOOK.

☐11 After the sanding sealer is completely dry, paint the entire model white. Let the white paint dry overnight. Apply masking tape and paper to cover and protect the areas which will remain white (See the Decor Layout illustration.) Paint the fins and the rear 2" of the body tube bright purple. Carefully remove the masking tape and paper as soon as the paint is dry.

DECOR LAYOUT

☐ **12** When all paint is dry, apply decals, (part K). Cut out a decal section, dip in lukewarm water for 10 seconds, and hold it until it uncurls. Slip the decal off the backing sheet and onto the model. Blot away excess water. For best results, let the model dry overnight and apply a coat of clear spray to protect the decals.

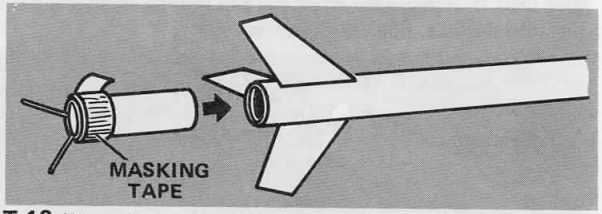
COUNTDOWN CHECKLIST



T-13 Loosely pack three or four squares of flameproof wadding into the body tube from the shock cord end. Fold the streamer in half lengthwise from where it is attached to the screw eye. Roll the streamer compactly enough to enter the body tube easily. Push the rolled streamer down into the body tube on top of the wadding.

T-12 Pack the shock cord neatly into the tube and slide the nose cone into place. The nose cone should separate easily from the rocket body tube, but should not be extremely loose. If it is too tight, sand the inside of the body tube end and the shoulder of the nose cone with extra fine sandpaper. If the nose cone is too loose, add a wrapping of transparent tape or masking tape to the shoulder of the nose cone.

T-11 Select an engine and install an igniter as directed in the engine instructions. Engines recommended for use with this rocket are ½A6-4, A8-5, B4-6, B6-6, and C6-7. (Use an ½A6-4 engine for your first flight).



T-10 Wrap the rear of the engine with enough masking tape so that it makes a tight fit in the body tube. This fit must be tight to obtain proper streamer deployment. Insert the engine into the rocket so the rear of the engine projects ¼" from the rear of the body tube.

T-9 Disarm the launch panel ---- remove safety key.

T-8 Place the rocket on the launch pad, making sure the rocket slides freely on the launch rod. Clean the micro-clips and attach them to the igniter.

T-7 Clear the launch area, alert recovery crew and trackers. Check for low flying aircraft and unauthorized persons in the recovery area.

T-6 Arm the launch panel ----- insert safety key.

-5 -4 -3 -2 -1 LAUNCH!

MISFIRE PROCEDURE

Occasionally the igniter will heat and burn into two pieces without igniting the engine. This is almost always caused by a failure to install it correctly. Disarm the launch panel, remove the model, clean the igniter residue from the nozzle, and install a new igniter. Follow the launching procedure again.

Screeming Eagle

ESTES
A DAMON COMPANY

Build the SCREEMING EAGLE with Estes High Performance Parts and Accessories.

WINNER AUG. 1978
DESIGN OF THE MONTH
SEAN ALLEN
Palo Alto, CA

SKILL LEVEL 2

PARTS LIST

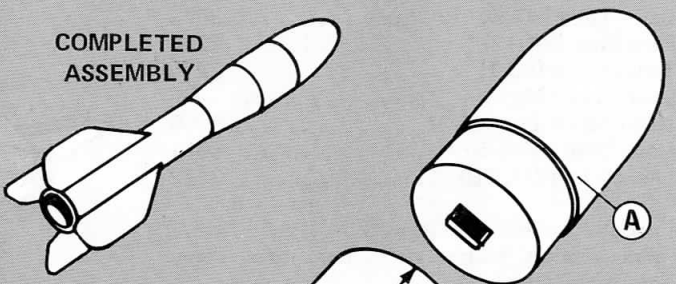
			CAT. NO.
A	1	Nose Cone (PNC-60L)	8020
B	1	Body Tube (BT-60) 1 1/4" Long	3075
C	1	Adapter (TA-5060)	8036
D	1	Screw Eye (SE-2)	2283
E	1	Parachute (PK-12)	2264
F	1	Shock Cord (SC-3)	85744
G	1	Body Tube (BT-50) 5 3/4" Long	3073
H	1	Fin Stock (BFS-30L)	32110
I	1	Launch Lug (LL-2A)	2321
J	1	Engine Mount (EM-2050)	3154
K	1	Shock Cord Mount	-------

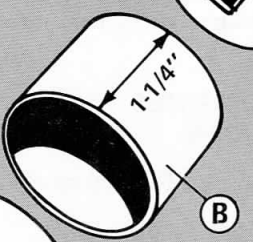
ADDITIONAL MATERIALS — **Hobby knife, white glue, sanding sealer, sandpaper, ruler, spray paint, and a pencil.**

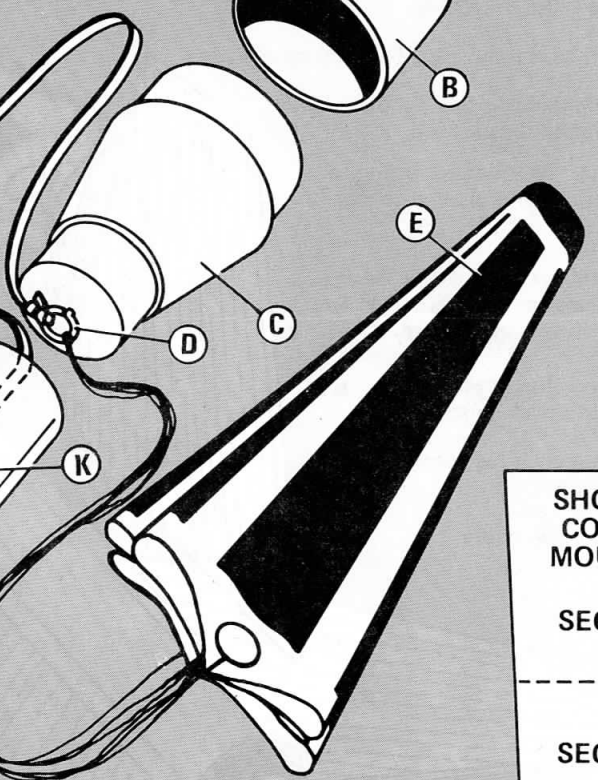
RECOMMENDED ENGINES

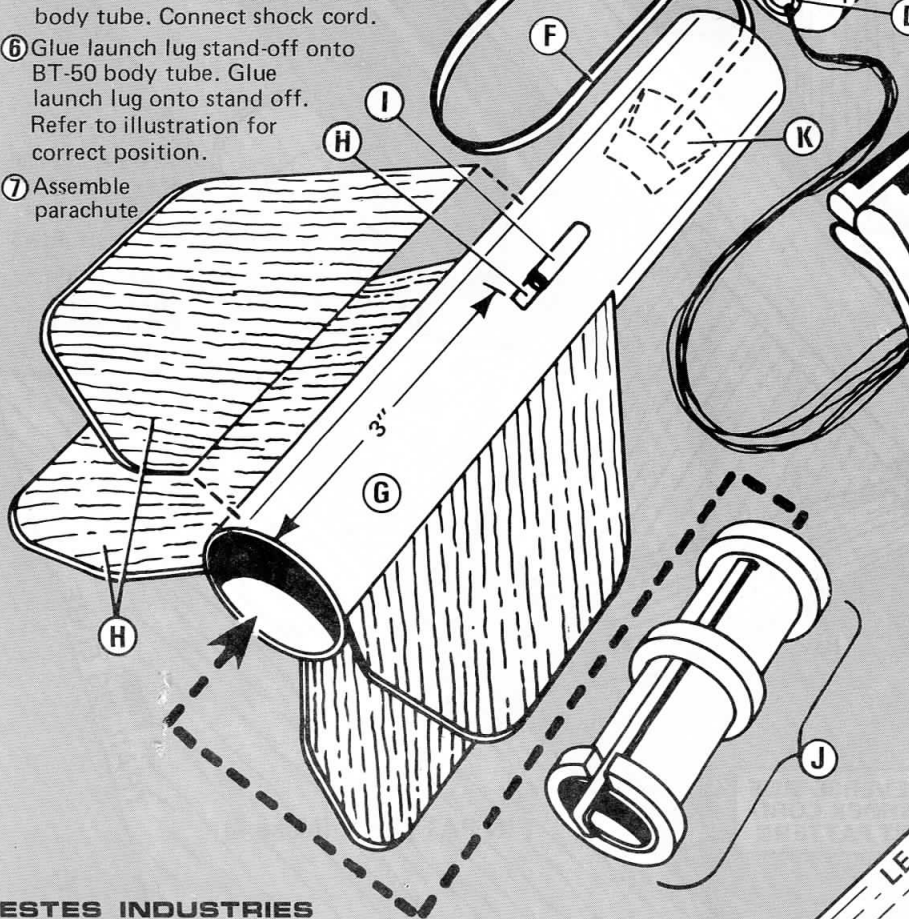
A8-3 B4-4 B6-4 C6-5

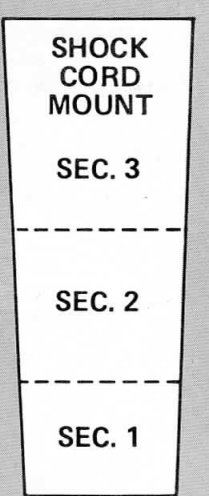
1. Mark fin lines using a BT-50 body tube guide. Cut the BT-50 body tube to a 5-3/4" length.
2. Trace and cut out the fins, sand and glue according to illustration.
3. Build the engine mount according to instructions and insert in rear of body tube.
4. Trace and cut out shock cord mount. Assemble and insert at 1-1/2" into front of body tube
5. Insert and glue screw eye into adapter. Glue adapter in BT-60 body tube. Glue nose cone into front end of BT-60 body tube. Connect shock cord.
6. Glue launch lug stand-off onto BT-50 body tube. Glue launch lug onto stand off. Refer to illustration for correct position.
7. Assemble parachute



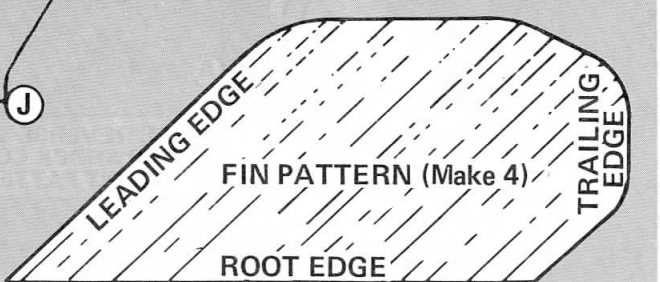








LAUNCH LUG STAND OFF PATTERN



ESTES INDUSTRIES
PENROSE, CO 81240 USA

WF-125 BANSHEE

ESTES
A DAMON COMPANY

HONORABLE MENTION
SEPT. 1978
DESIGN OF THE MONTH
By KEVIN SCHLIER
Stroudsburg, PA

Build the WF-125 BANSHEE with Estes High Performance Parts and Accessories.

SKILL LEVEL 1

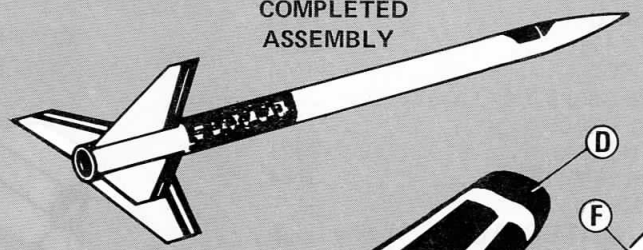
PARTS LIST			CAT. NO.
A	1	Engine Mount (EM-2050)	3154
B	2	Fin Stock (BFS-30)	32108
C	1	Body Tube (BT-50) 12" Long	3073
D	1	Parachute (PK-12)	2264
E	1	Shock Cord (SC-1)	2276
F	1	Shock Cord Mount	------
G	1	Large Screw Eye (SE-1)	2280
H	1	Nose Cone (BNC-50Y)	8011
I	1	Launch Lug (LL-2B)	2322

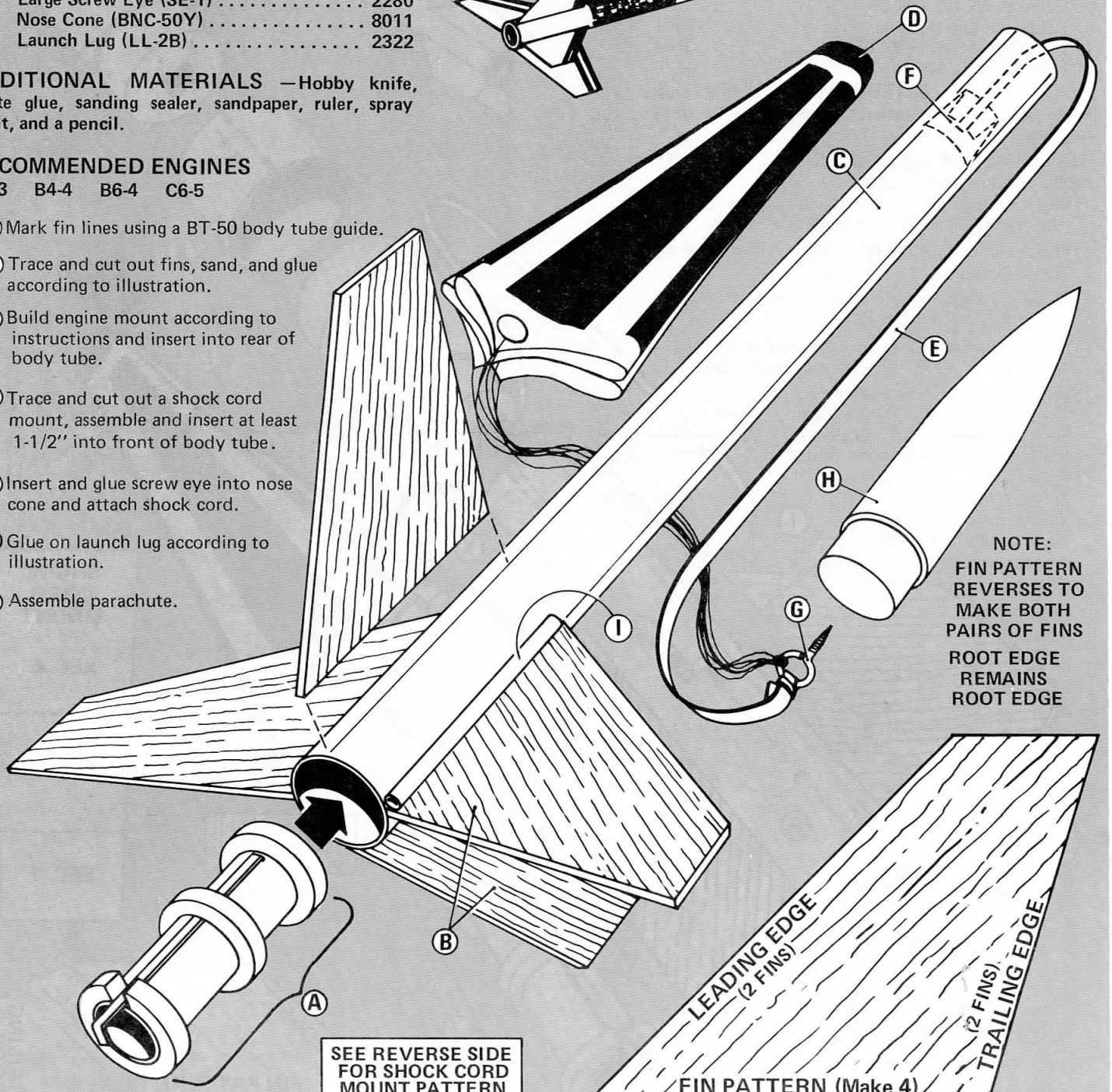
ADDITIONAL MATERIALS —Hobby knife, white glue, sanding sealer, sandpaper, ruler, spray paint, and a pencil.

RECOMMENDED ENGINES
A8-3 B4-4 B6-4 C6-5

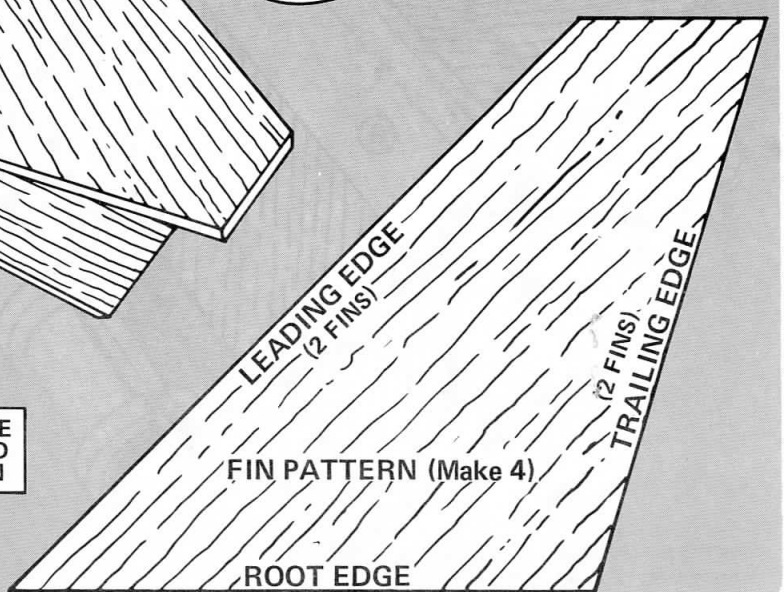
1. Mark fin lines using a BT-50 body tube guide.
2. Trace and cut out fins, sand, and glue according to illustration.
3. Build engine mount according to instructions and insert into rear of body tube.
4. Trace and cut out a shock cord mount, assemble and insert at least 1-1/2" into front of body tube.
5. Insert and glue screw eye into nose cone and attach shock cord.
6. Glue on launch lug according to illustration.
7. Assemble parachute.

COMPLETED ASSEMBLY





NOTE:
FIN PATTERN REVERSES TO MAKE BOTH PAIRS OF FINS
ROOT EDGE REMAINS ROOT EDGE



SEE REVERSE SIDE FOR SHOCK CORD MOUNT PATTERN

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